

REMARKS

Claims 1-13 and 15-20 are pending in the application. The Examiner's reconsideration of the rejections is respectfully requested in view of the remarks.

REQUEST FOR INFORMATION UNDER 37 CFR §1.105:

By the Final Office Action, the Request for Information Under 37 CFR §1.105 made in the Office Action dated February 20, 2008 has been reiterated. More particularly, the Examiner has made a specific request for information relating to the conference presentation, "Accepting Bids Under Uncertain Future Demands," INFORMS Annual Meeting, Miami Florida, November 5-8, 2001. Respectfully, the previous response is believed to be responsive; materials related to the above-identified conference presentation cannot be readily obtained.

REJECTIONS:

Claim 5 has been rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention.

Claim 5 recites, "estimating a likelihood comprises determining a demand forecast and comparing the demand forecast and the planned sales volume."

The Examiner suggested that the comparison is subjective and implies only a human apprehension and assessment with no guidelines in the specification as to how this assessment is to be made. Respectfully, the claim merely recites a comparison between two values, demand forecast and sales volume plainly. Clearly, one of ordinary skill in the art would understand how to compare a demand and sales.

The Examiner further suggested that the term “estimating” in conjunction with “comparing” is vague and indefinite and is a relative term. Respectfully, “estimating” is clearly not a relative term. Further, the specification provides substantial description related to estimating the likelihood that the demand exceeds the planned sales volume, see for example, page 15, line 14 to page 18, line 7. Since the claimed invention is directed to developing an optimal sales plan, estimates are used for future unknowns, e.g., demand. Claiming an estimate does not necessarily require that the claim is vague. Indeed, the specification provides specific exemplary embodiments for determining estimates. One of ordinary skill in the art would understand that future unknown demand cannot be determined with certainty and would understand what is meant by the claimed estimate. Reconsideration of the rejection is respectfully requested.

Claims 1-13 and 15-20 have been rejected under 35 USC §103(a) as being unpatentable over Ahmed (A Multi-Stage Stochastic Integer Programming Approach for Capacity Expansion under Uncertainty) in view of Bichler (Applications of Flexible Pricing in Business-to-Business Electronic Commerce) and further in view of Santos et al. (US 2002/0143665). The Examiner stated essentially that the combined teachings of Ahmed, Bichler and Santos teach or suggest all the limitations of Claims 1-13 and 15-20.

Claims 1, 15 and 20 are independent.

Claims 1 and 20 claim, *inter alia*, “formulating a multistage stochastic program that generates a quantity of each of the multiple products to be sold in each of the multiple time periods and a recommendation for whether to accept an order for at least one of the multiple products at a time when demand exceeds a planned sales volume at least one of the multiple time

periods.” Claim 15 claims, *inter alia*, “a stochastic programming engine for formulating and executing a multistage stochastic program that generates (i) a strategic decision model for prescribing a quantity of each product to be sold in each of the multiple time periods, and (ii) a tactical decision model for generating recommendation for whether to accept an order for at least one of the multiple products at a time when demand exceeds a planned sales volume for at least one of the multiple time periods; and a trigger engine for estimating a likelihood that the realized demand for at least one of the multiple time periods exceeds the planned sales volume.”

Ahmed teaches methods for strategic level decision making for the multi-resource capacity expansion problem (see page 1, Introduction, first sentence and page 2, Formulation, first paragraph). Ahmed does not teach or suggest tactical level decision making - that is, Ahmed does not teach or suggest “recommendation for whether to accept an order for at least one of the multiple products at a time when demand exceeds a planned sales volume” as claimed in Claims 1, 15, and 20. Ahmed’s purpose is to satisfy the demand of a product family (see page 2, last 2 lines, to page 3, line 1) - indeed, Ahmed does not include a discussion of a case where demand exceeds supply. Therefore, Ahmed fails to teach all of the limitations of Claims 1, 15, and 20.

Bichler teaches how to set allocations and recommend prices for channels (see page 298, right col., lines 10-15). Bichler does not teach or suggest tactical level decision making - that is, Bichler does not teach or suggest “recommendation for whether to accept an order for at least one of the multiple products at a time when demand exceeds a planned sales volume” as claimed in Claims 1, 15, and 20. While Bichler teaches mechanisms for flexible pricing on the buy and sell sides (see for example, page 290, Figure 1), Bichler is silent as to recommendations about whether to accept an order. Therefore, Bichler fails to cure the deficiencies of Ahmed.

Santos teaches a method of managing product end of life; when to discontinue a product (see Abstract and paragraph [0002]). Santos does not teach or suggest a “recommendation for whether to accept an order for at least one of the multiple products at a time when demand exceeds a planned sales volume” as claimed in Claims 1, 15, and 20. Santos is specifically used for the teaching of a two stage stochastic programming model to hedge procurement investments against demand uncertainty, and make and sell decisions (see paragraph [0078]). Santos teaches that purchase decisions frequently must be made well in advance of realization of demand. On a basic level, Santos is concerned with when to make purchases. The claimed invention is directed towards making sales. While both purchases and sales typically include some notion of demand, Santos does not make a specific determination “at a time when demand exceeds a planned sales volume” as claimed. Santos decides whether to build more products (including buying materials for the products). There is no determination of whether to make a sale – Santos clearly intends to sell every item produced. Therefore, Santos does not cure the deficiencies of Ahmed and Bichler.

The combined teachings of Ahmed, Bichler and Santos teach methods for strategic level decision making in purchasing. The combined teachings of Ahmed, Bichler and Santos fail to teach or suggest a tactical level decision recommendation for sales - whether to accept an order - essentially as claimed in Claims 1, 15, and 20.

Claims 2-13 depend from Claim 1. Claims 16-19 depend from Claim 15. The dependent claims are believed to be allowable for at least the reasons given for the respective independent claims. The Examiner’s reconsideration of the rejection is respectfully requested.

OFFICIAL NOTICE:

The Examiner has affirmed the Official Notice taken with respect to portions of Claims 8, 10, 12, 13, 16, and 17, and has newly taken Official Notice of portions of Claim 11. Applicants previously traversed the finding of Official Notice with respect to Claims 12-14, 16 and 17.

Referring to Claim 11; Applicants respectfully traverse the use of Official Notice as against Claim 11. Claim 11 recites, “calculating a confidence level representing a probability that the realized order data will be outside the range of a confidence interval.”

The Examiner has taken Official Notice that a “confidence level” represents the probability that a random variable lies outside a range specified by the associated confidence interval, and leverages this Official Notice to apply to the claimed limitation. As an initial matter, Applicants note that this instance of Official Notice is being taken for the first time under final rejection.

Further, while confidence intervals are useful in many applications, the prior use of confidence intervals in other applications does not, in and of itself, render the use with respect to the claimed realized order data common knowledge or well-known in the art. For example, none of the cited art is applicable to realized order data, this alone points to a novelty of the claimed method – decisions related to whether to make a sale are not well-known in the art. That is, there is no known application of the claimed limitations to deciding whether to make a sale.

Therefore, if the Examiner is relying on personal knowledge to support the findings of what is known in the art, the Examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. Such documentary evidence is respectfully requested.

Referring to Claims 12-14, 16 and 17; the Examiner has deemed the material taken under Official Notice to be admitted prior art.

Federal Courts, pursuant to the Administrative Procedure Act, review USPTO findings of fact under “the substantial evidence” standard, as a result of the Supreme Court’s decision in *Dickinson v. Zurko*. This standard obligates the USPTO to provide a record that includes sufficient documentary evidence to enable judicial review. This obligation, in turn, constrains the USPTO’s reliance on Official Notice to only facts that are “capable of such instant and unquestionable demonstration as to defy dispute.”

Additionally, there is a due process argument that an Applicant is entitled to appropriate notice as to why claims are rejected and why submitted patentability arguments are deemed unpersuasive.

A leading decision concerning Official Notice is *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420-421, (CCPA 1970) stating that assertions of technical facts in areas of esoteric technology must always be supported by citation of some reference work and allegations concerning specific knowledge of the prior art, which might be peculiar to a particular art, should also be supported.

Respectfully, the Final Office Action neither provides evidentiary support for the various material taken under Official Notice nor an affidavit or declaration setting forth specific factual statements and an explanation to support the finding.

For the forgoing reasons, the present application, including Claims 1-13 and 15-20, is believed to be in condition for allowance. The Examiner's early and favorable action is respectfully urged.

Respectfully submitted,

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